

Notice of Allowability

Application No.

10/635,416

Applicant(s)

YATAKE, MASAHIRO

Examiner

Manish S. Shah

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☐ The drawings filed on ____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1/14/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

MSH
12/21/04

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Clifford J. Mass on 12/21/2004.

The application has been amended as follows:

Specification:

Page: 19, line: 7, changed " $\eta(1-n)(\sigma-1)$ " to $--\eta(1-n(\sigma-1))--$;

Page: 19, line: 11, changed " $\eta(1-n)(\sigma-1)$ " to $--\eta(1-n(\sigma-1))--$;

Page: 19, line: 14, changed " $\eta(1-n)(\sigma-1)$ " to $--\eta(1-n(\sigma-1))--$;

Page: 20, line: 4, changed " $\eta(1-n)(\sigma-1)$ " to $--\eta(1-n(\sigma-1))--$;

Page: 21, line: 4, changed " $\eta(1-n)(\sigma-1)$ " to $--\eta(1-n(\sigma-1))--$;

Page: 21, line: 14, changed " $\eta(1-n)(\sigma-1)$ " to $--\eta(1-n(\sigma-1))--$;

Page: 23, line: 10, changed " $\eta(1-n)(\sigma-1)$ " to $--\eta(1-n(\sigma-1))--$.

Abstract:

The following examiner's amendment is provided to correct the abstract in accordance with MPEP 608.01(b).

The application has been amended as follows:

Line: 11 changed "comprises" to --includes--.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:
3. The primary reason for allowance of claims 1-14 is that applicant's claimed invention includes an ink set for ink jet recording having plurality of color, and the value of $\eta(1-n(\sigma-1))$ is calculated from the viscosity of the plurality of colors of the ink, which is measured at shear rate of 200 S^{-1} and at 20°C , is within $\pm 5\%$ for the plurality of color ink, wherein n is a coefficient indicating $(\eta_L - \eta_H) / \eta_H$, wherein η_L is viscosity measured at a shear rate of 10 S^{-1} , and η_H is the viscosity measured at a shear rate of 1000 S^{-1} ; $0.1 \geq n$. It is this limitation, expressed in the claimed combination not found, taught or suggested in the prior art, that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Pertinent Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) Tomiya et al. (# US 5942028) discloses the printing ink having particles with an aspect ratio of 1 to 2 (see Abstract).

(2) Nakajima et al. (# US 2004/0069182) discloses an UV curable ink including a pigment, polymerizable compound and a photopolymerization initiator, wherein ink has an absolute value of a viscosity difference between a viscosity at 25 degree C, at shear rate 10 S^{-1} and viscosity at 25 degree C at shear rate 1000 S^{-1} being not more than 5 mPa.s (see Abstract).

(3) Hayashi et al. (# EP 1142965 A1) discloses an UV curable ink has a viscosity of 2 to 13 Pa.s measured at shear rate of 100 S^{-1} at 23 degree C (see Abstract).

(4) Morii et al. (# US 6027559) discloses the ink composition has pigment particles with the aspect ratio of 2 to 20 (see Abstract).

(5) Busby et al. (# US 6499839) discloses the inkjet ink composition has a viscosity is measured at shear rate 0.01 S^{-1} to 10^3 S^{-1} (column: 7, line: 10-30).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah
Primary Examiner
Art Unit 2853


MSS
12/21/04